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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,460

07/14/2006

Nigel Harold Hancock

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7370

28249 7590 01/16/2009
DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
SUITE 702
UNIONDALE, NY 11553

EXAMINER

ZHU, JOHN X

ART UNIT

PAPER NUMBER

2831

MAIL DATE

DELIVERY MODE

01/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,460	Applicant(s) HANCOCK ET AL.	
	Examiner JOHN ZHU	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/14/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Australia on 1/14/05. It is noted, however, that applicant has not filed a certified copy of the PCT/AU05/00040 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement filed on 7/14/06 includes reference by Gupta et al. This document is not legible. Please provide a new copy.

Claim Objections

3. Claims 6, 8 and 9 are objected to because of the following informalities:
antecedent basis problems.

Claim 6 recites "said mounting plate".

Claim 8 recites "the centre-to-centre separation".

Claim 9 recites "the centre-to-centre separation".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the material and the conducting elements is not claimed.

Allowable Subject Matter

6. Claims 15 and 16 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: claims 15 and 16 are allowable over the art of record because the prior art does not teach or render obvious the entire combination including specifically a method of measuring electrical conductivity in a material comprising coupling a pair of electrically conducting elements with a first electrical conductor which couples a first transformer core and a second transformer core, and coupling the second transformer core and a third transformer core with a second electrical conductor of known resistance.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wieland et al. (6,812,709 B2) discloses a conductivity sensor comprising two transformer cores.

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Brown et al. (5,455,513) discloses a system for measuring material properties utilizing transformer core techniques.

Hutchins (4,138,639) discloses a fluid conductivity measurement apparatus.

Brown (3,510,761) discloses a salinometer with similar techniques.

Wakamatsu (5,793,214) discloses a conductivity probe with calibration.

Rezvani (6,414,493 B1) discloses another conductivity sensor with toroid transformer cores.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN ZHU whose telephone number is (571)272-5920.

The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Gutierrez/
Supervisory Patent Examiner, Art Unit 2831

John Zhu
Examiner
Art Unit 2831

/John Zhu/
Examiner, Art Unit 2831